

REMEDIATION PROCESS OPTIMIZATION IN THE AGE OF PERFORMANCE CONTRACTS

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The Air Force started developing Remediation Process Optimization (RPO) concepts in 1997. This was largely in response to the large number of pump and treat systems and monitoring networks that were installed early in the environmental restoration program execution. As these systems were operated over the course of several years, data and contaminant trend evaluation generally indicated much longer timeframes were necessary for remediation to reach goals. Early optimization efforts focused on individual systems and the changes that could be made to improve their performance. Long Term Monitoring (LTM) optimization also became recognized as a means of focusing data collection on spatial distributions, reducing the number of extraneous wells being sampled. Again, the focus was on individual sites or installations and the LTM planned did not have endpoints.

Although RPO and LTM-O helped improve performance relative to the original remedy and/or approach, there were a number of factors which indicated the benefits were limited. Performance Based Management (PBM) guidance was rolled out to address remediation approaches with documentation of the problem and site objectives, planned land use, development of Conceptual Site Models (CSMs) and Exit Strategies (ES), and development of a contracting strategy to execute the work. PBM was the first AF optimization program to roll individual site strategies into an installation-wide program management approach.

At the same time that contracting strategies leaned more in the direction of installation-wide or regional contracts, the Air Force also focused on the Remedy In Place (RIP) by 2012 initiative. This placed a significant emphasis on getting many sites to RIP at the same time and within a few years. This meant that the Air Force needed to re-baseline the ERP so that resources could be allocated appropriately for sites and installations to achieve the RIP 2012 goal. In response to the need, AFCEE/TDV implemented the Environmental Restoration Program – Optimization (ERP-O) program. Technical teams worked with the AFCEE/R-PMO and installations to evaluate and provide recommendations to address sites at risk of missing the RIP 2012 goal. While individual sites did receive technical evaluation and recommendations were developed, the focus was on identifying alternatives and areas where optimization would be beneficial. Technical RPO and LTM-O evaluation and implementation was left to individual installations for implementation.

Now that the RIP 2012 has largely been met, the AF is working towards new goals. The two highest priority goals are implementation of Performance Based Remediation (PBR) contracts and attaining site closure at YY% of sites. The role of RPO and LTM-O has shifted as a result of PBR implementation. Contractors will likely implement traditional RPO and LTM-O evaluations at sites as a technically and regulatory recognized means of adapting to site conditions. The terms of the typical PBR contract, however, emphasizes the contractor's responsibility in making decisions for sites in achievement of the AF stated goals. As a result, evaluations and recommendations developed by the AF can only be provided to the contractor as information and not direction.

The ERP-O program has already shifted focus to provide technical and programmatic evaluations and recommendations in advance of PBRs. This allows the AF to evaluate the progress made to date and then develop SOOs with appropriate goals defined. This presentation will discuss the evolution of the RPO concept and provide examples of the current approach based on recent ERP-O team efforts.